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# GS-WAVE Series

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User's Manual



**WAV-SUB** Multi-fold hyperbolic horn subwoofer

**WAV-HORN** Large horn extension for WAV-SUB

**WAV-LOW** Dual 15 inch high-power upper bass box

**WAV-LENS** Acoustic lens with coaxial compression drivers

**WAV-TWPOD** Omnidirectional super tweeter pod

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# Introduction

## WARNING

- This speaker system must be installed by a qualified technician as it involves such tasks as selecting a location for installation, drilling holes in walls/ceiling, wiring, and painting. Have the installer carefully follow the installation instructions.
- Certain technical skills are required to install the speaker system. Please have the product installed by a professional.
- Pioneer is not responsible for any loss or damage that results from improper installation, insufficient strength of installation materials, misuse, modification or natural disasters.

Thank you for buying this Pioneer product. Please read through these operating instructions so you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.

## Before you start

- Make sure to use amplifiers with rated load impedances that match the speaker impedance for the amplifiers connected to each speaker system.
- In order to prevent damage to the speaker system resulting from input overload, please observe the following precautions:
- Do not supply amplification power to the speaker system in excess of the maximum permissible input, which could damage the speaker and cause a hazard from overheating.
  - Only connect, turn ON or OFF the audio system or any one part (such as DJ player and Mixer) when the power to the amplifier is turned off. If any operations are performed while the amplifier is turned on, there is the possibility of damaging the treble frequency speaker unit.
  - When using a graphic equaliser to emphasise loud sounds in the high-frequency range, do not use excessive amplifier volume.
  - Do not try to force a low-powered amplifier to produce high sound levels as the amplifier's harmonic distortion will be increased, and you may damage the speaker.
  - Furthermore, any devices or objects easily affected by magnetism (floppy disks, magnetic cards, magnetic tape etc.) should be kept well away from the speakers.

### Caution: installation

- Ensure that the floor or stage surface can withstand the weight of the system.
- The installation technician must follow professional installation techniques to protect the speaker system against falling.
- When installing the speakers, make sure that the wall/ceiling is strong enough to support the speakers.
- Improper installation of the speakers could cause them to fall and cause damage or injuries to persons nearby.
- Do not attempt to stack devices together for use other than specified systems. Such devices may become unstable and tip over or fall, leading to injury. Make sure to secure each device in place using the specified fixing hardware or other hardware to prevent them from tipping over or falling when stacking devices together. Pioneer shall accept no liability for damage or injury caused by accidents resulting from Pioneer products tipping over or falling due to them being insufficiently secured.
- Switch off and unplug your power amplifier and consult the instructions when connecting up components. Make sure you use the correct connecting cables.
- Keep magnetic objects such as screwdrivers or steel parts away from the tweeter and woofer speakers. Since the speakers use strong magnets, the objects may be attracted, causing injury or damaging the diaphragm.
- Do not install the speaker system in areas exposed to direct sunlight or near heating appliances. Such conditions may result in shrinkage of the wood materials and finish, leading to deformation of the enclosure, discolouration, or damage to the speakers.

Conditions considered unpleasant by humans are detrimental to speakers as well. Providing a comfortable environment for the speakers will assist them in demonstrating their best performance. Please maintain the usage environment as follows:

Temperature: 15 °C to 25 °C (59 °F to 77 °F)

Relative Humidity: 35 % to 65 % (winter)

40 % to 70 % (summer)

- Do not store speakers at temperatures outside of the rated temperature range as doing so may cause the speaker to drop in performance or become damaged.
- Storage temperature range: -20 °C to +55 °C (-4 °F to +131 °F)
- Do not use the product in locations subject to extreme fluctuations in temperature. Doing so could cause the product to malfunction.
- When using room air-conditioners or stoves to rapidly cool or heat room spaces, take precautions to avoid excessive dehumidification.
- Avoid placing the speaker near areas such as windows, as outside air can cause condensation to occur within the speaker.
- This speaker system is designed for indoor use only. To avoid electric shock hazard, do not place them outside, or in an overly humid area.

### Caution: in use

- Do not use the speaker to output distorted sound for long periods of times. This can result in a fire hazard.
- Do not sit or stand on the speaker.
- Do not put large or heavy objects on top of the speaker.
- Please also remember that vibrations from subwoofer systems can shake other loudspeakers out of place, which may present a toppling hazard.
- Do not attempt to use the product with the GS-WAVE Series grille detached as doing so could result in damage to the product. Consult a qualified professional for assistance with removing the grille for maintenance purposes.

## For Europe



If you want to dispose of this product, do not mix it with general household waste. There is a separate collection system for used electronic products in accordance with legislation that requires proper treatment, recovery and recycling.

Private households in the member states of the EU, in Switzerland and Norway may return their used electronic products free of charge to designated collection facilities or to a retailer (if you purchase a similar new one).

For countries not mentioned above, please contact your local authorities for the correct method of disposal.

By doing so you will ensure that your discarded product undergoes the necessary treatment, recovery and recycling and thus prevent potential negative effects on the environment and human health.

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## The Safety of Your Ears is in Your Hands

Get the most out of your equipment by playing it at a safe level – a level that lets the sound come through clearly without annoying blaring or distortion and, most importantly, without affecting your sensitive hearing. Sound can be deceiving. Over time, your hearing “comfort level” adapts to higher volumes of sound, so what sounds “normal” can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

### ESTABLISH A SAFE LEVEL:

- Set your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, without distortion.
- Once you have established a comfortable sound level, set the dial and leave it there.

### BE SURE TO OBSERVE THE FOLLOWING GUIDELINES:

- Do not turn up the volume so high that you can't hear what's around you.
- Use caution or temporarily discontinue use in potentially hazardous situations.
- Do not use headphones while operating a motorised vehicle; the use of headphones may create a traffic hazard and is illegal in many areas.

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## Installation guidelines

### WARNING

- This speaker system must be installed by a qualified technician as it involves such tasks as selecting a location for installation, drilling holes in walls/ceiling, wiring, and painting. Have the installer carefully follow the installation instructions.
- Certain technical skills are required to install the speaker system. Please have the product installed by a professional.
- Pioneer is not responsible for any loss or damage that results from improper installation, insufficient strength of installation materials, misuse, modification or natural disasters.

### Rigging and suspension (WAV-TWPOD)

- GS-WAVE series products come with pre-inserted hardware mounting screws. These screws can be taken out and used to attach either special mounting hardware designed for the product or commercially available mounting hardware.
- Use screws suitable for ceiling material and screw mounting parts in solid locations.
- After installation, you must confirm that the speakers are safely installed. You must also periodically check them to make sure that they are still safe.
- Make sure to use mounting hardware of sufficient strength to secure the speaker in place when using non-designated hardware. The speaker could fall, causing accidents, if not properly secured.
- The fall prevention wire must be attached to a suitably strong location. The strength of the location to which the wire is attached being insufficient can lead to the speakers falling or cause accidents. The fall prevention wire and screw to attach the fall prevention wire to the ceiling or wall are not supplied with the speakers, so please purchase them separately.
- To hang the WAV-TWPOD from the ceiling, use the eye bolts attached to the product to attach a chain that has sufficient strength. Furthermore, be sure to attach a fall prevention wire that has sufficient strength.

### WARNING

- Before hanging the product from the ceiling, make sure in advance that the ceiling has enough mounting strength to be able to withstand the weight of the product. If the equipment was to fall it would be very dangerous and may result in a serious injury.
- When hanging the product from the ceiling, be sure to attach a fall prevention wire that has sufficient strength to the eye bolts that are not used for the chain.
- Do not put the WAV-TWPOD on top of the speaker, etc.

### Ground Stacking (except for WAV-TWPOD)

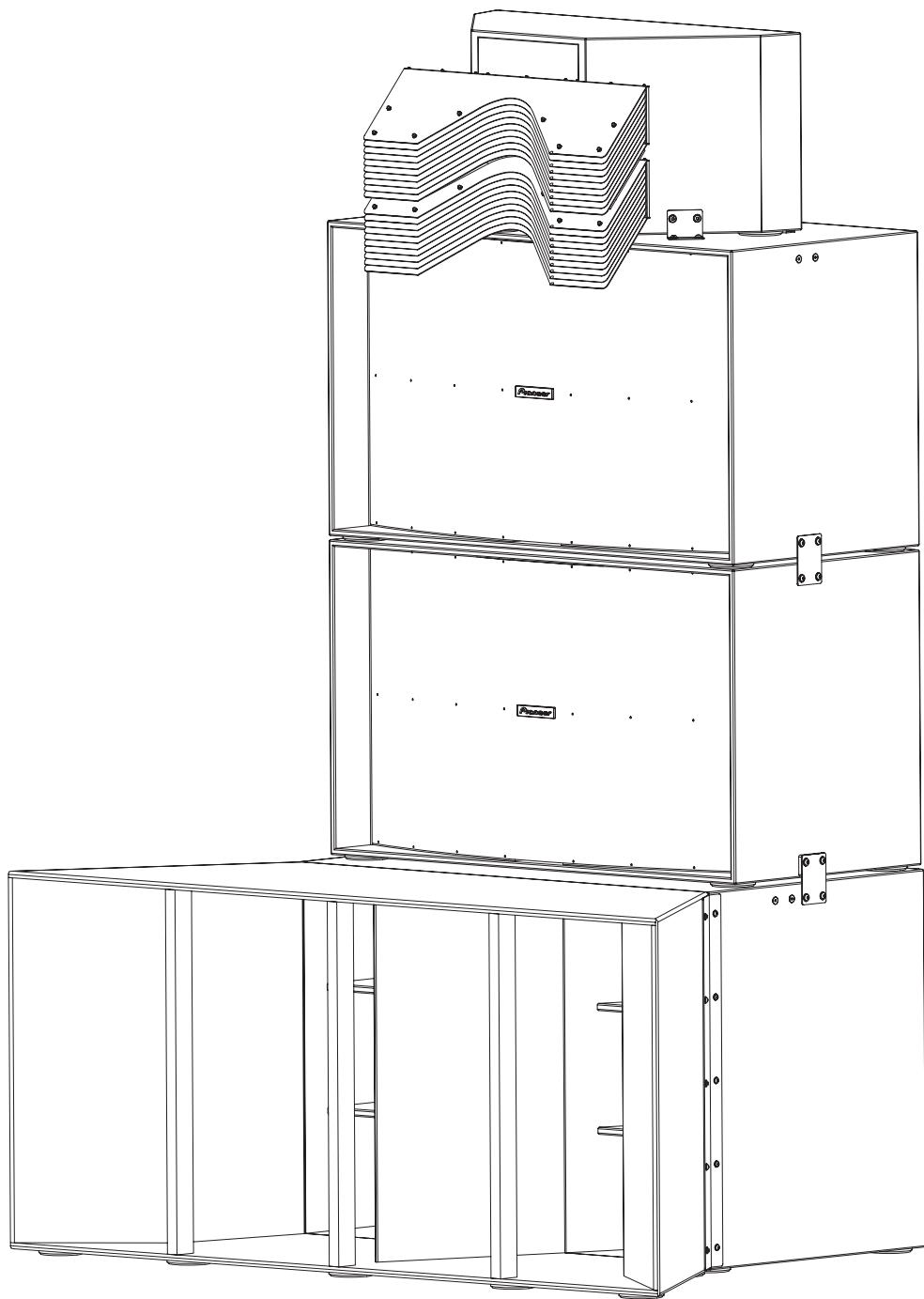
- GS-WAVE series products come with pre-inserted hardware mounting screws for stacking products together. These screws can be taken out and used to attach either special mounting hardware designed for the product or commercially available mounting hardware.
- Ensure that the floor or stage surface in question can withstand the weight of the product. Consult a qualified professional for advice if the strength of the surface is unknown.
- Check to make sure that the mounting hardware is strong enough to support the weight of the product when using the special hardware designed for the product. Make sure to read the Introduction section in this manual and the instruction manual for the mounting hardware thoroughly before proceeding. Take every precaution to prevent the product and associated parts from falling as they could cause serious injury if they fell onto a person.
- After installation, you must confirm that the speakers are safely installed. You must also periodically check them to make sure that they are still safe.
- Make sure to use mounting hardware of sufficient strength to secure the speaker in place when using non-designated hardware. The speaker could fall, causing accidents, if not properly secured.
- The grill is constructed so that it can be detached, and if it is not attached securely, it will become detached and fall, causing an injury.

### WARNING

- Do not hang the grill from the ceiling. It may fall, causing an injury.
- When this product is placed in an elevated place such as on a stage, a speaker may be moved by vibrations and fall to the floor, causing an injury or accident. Take measures to prevent a speaker from sliding off a stage, etc.

## About GS-WAVE series

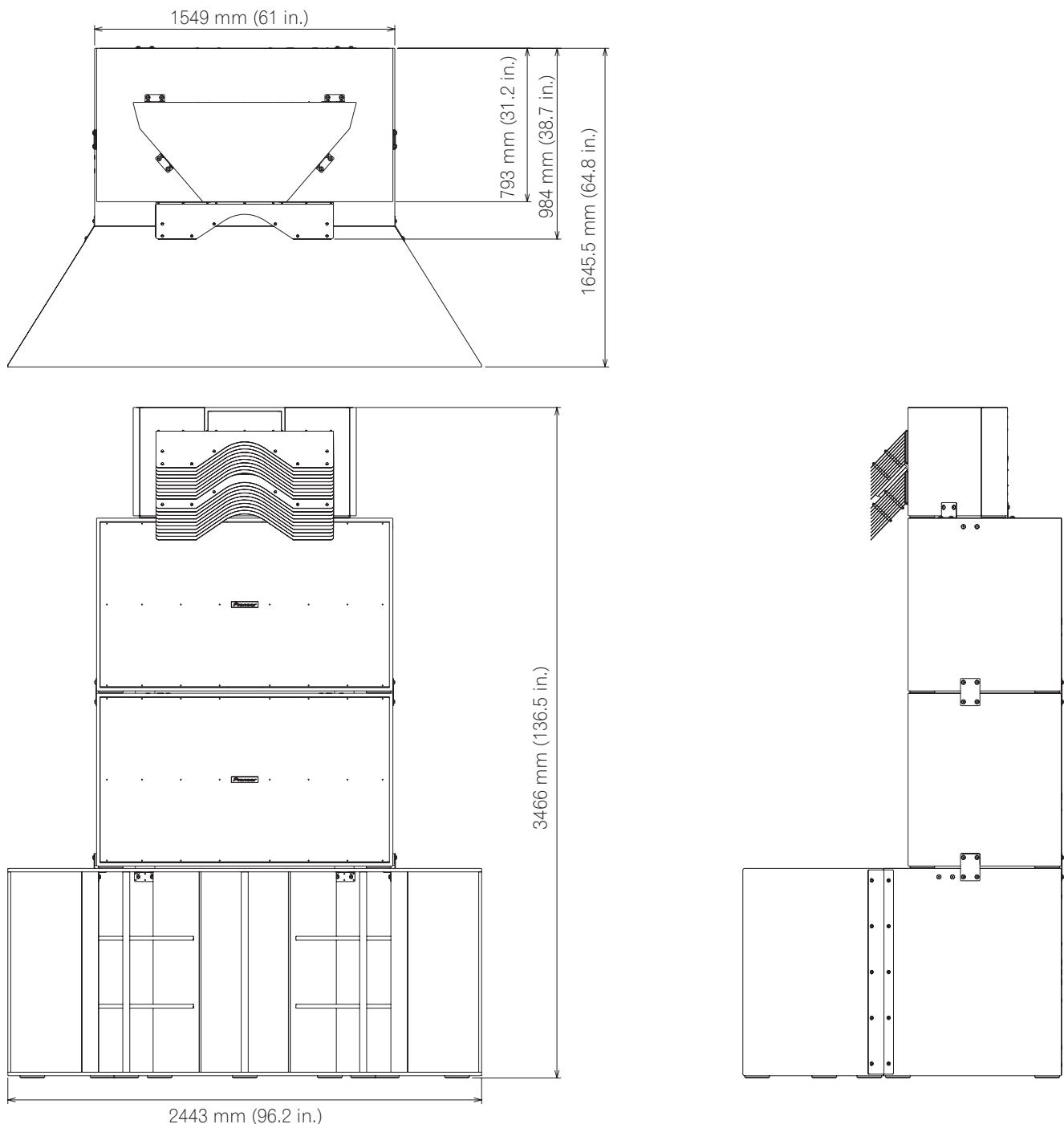
### Overview



### Features

- The ultimate club system, the 3-metre GS-WAVE floor stack delivers a warm, solid sound you can feel.

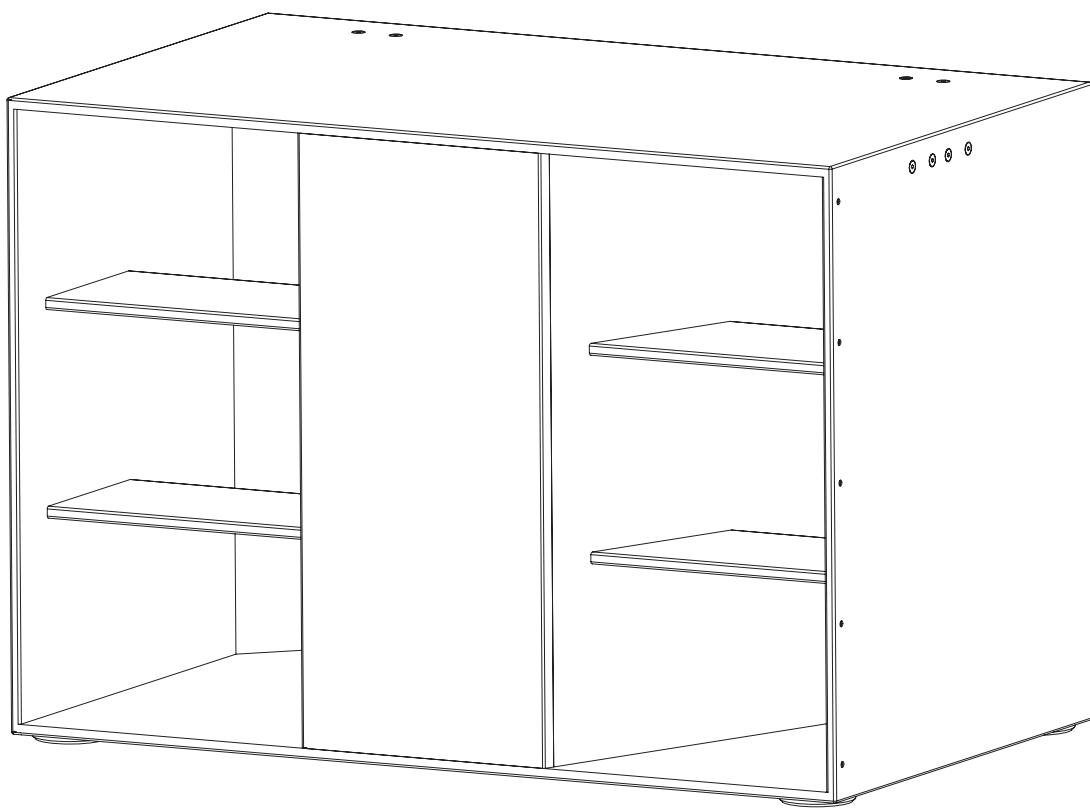
## Dimensions



The mounting hardware is sold separately. Contact the installer for assistance.

# WAV-SUB specifications

## Product overview



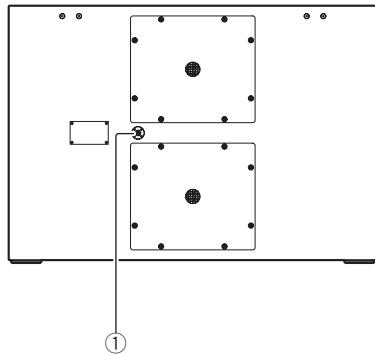
## Features

- Hyperbolic subwoofer with 18 inch LF drivers.
- 3-metre folded horn that efficiently amplifies the sound from the drivers to deliver a robust, high-impact sensory bass with minimal distortion.
- Highly rigid 18 mm thick (0.7 in. thick) birch plywood cabinet structure.

## Connections

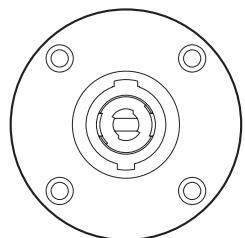
- The INPUT connector used is a Neutrik NL4 SpeakON™ connector.
- Refer to the internal connection diagram and make the appropriate connections as shown.

WAV-SUB  
Rear view

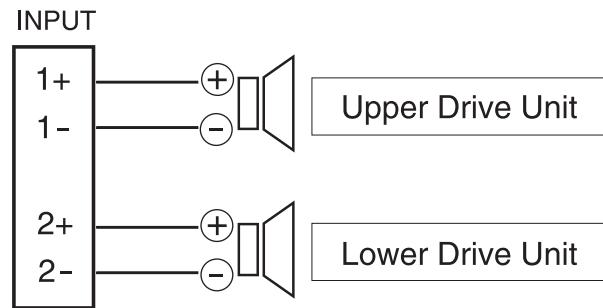


### ① INPUT connector

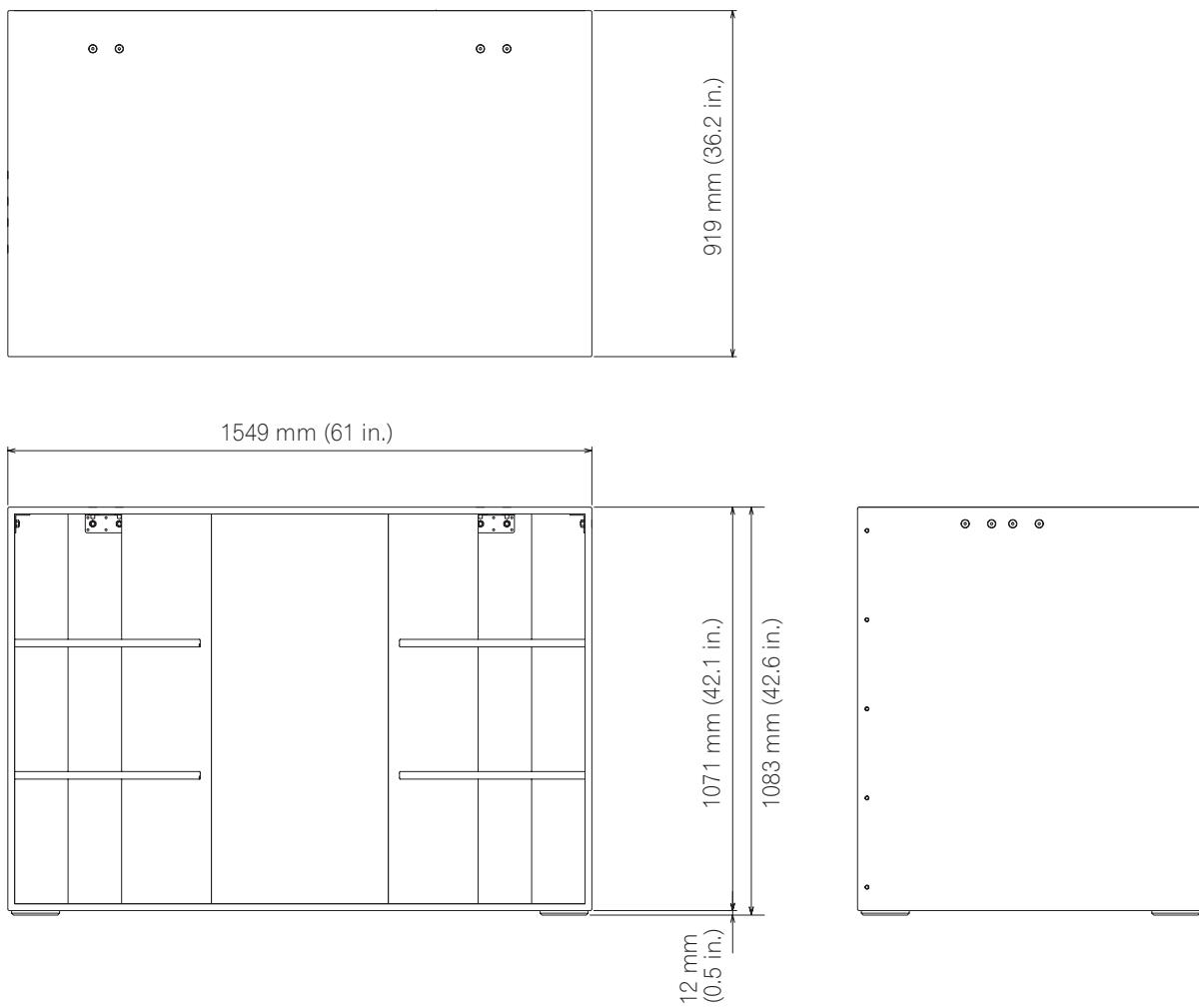
Neutrik  
NL 4MPR Connector



### Internal connection diagram



## Dimensions



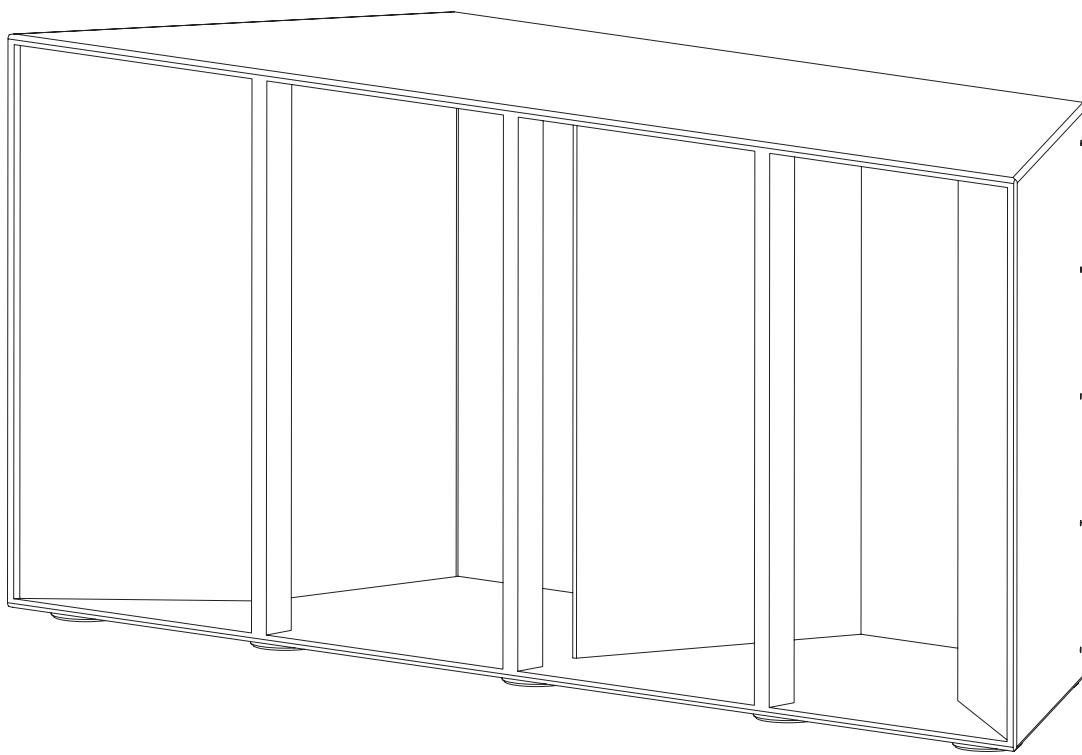
## Specifications

Enclosure Type	Hyperbolic folded horn subwoofer
Frequency Response	35 Hz to 150 Hz
Sensitivity (1 W/1 m)	108 dB (half space)
Nominal Impedance	2 × 8 Ω
Power Handling	1600 W RMS, 3200 W Programme
Maximum SPL	140 dB cont., 146 dB peak (half space)
Dispersion	—
Driver Configuration	2 × 18 inch (457 mm) ferrite LF drivers
Connectors	1 × Neutrik SpeakON™ NL4MPR
Dimensions (W×H×D)	1549 mm × 1083 mm × 919 mm (61 inch × 42.6 inch × 36.2 inch)
Weight	213 kg (469.7 lb)
Enclosure	18 mm (0.7 inch) birch plywood
Finish	Impact-resistant, Black textured polyurethane

The specifications and design of this product are subject to change without notice.

# WAV-HORN specifications

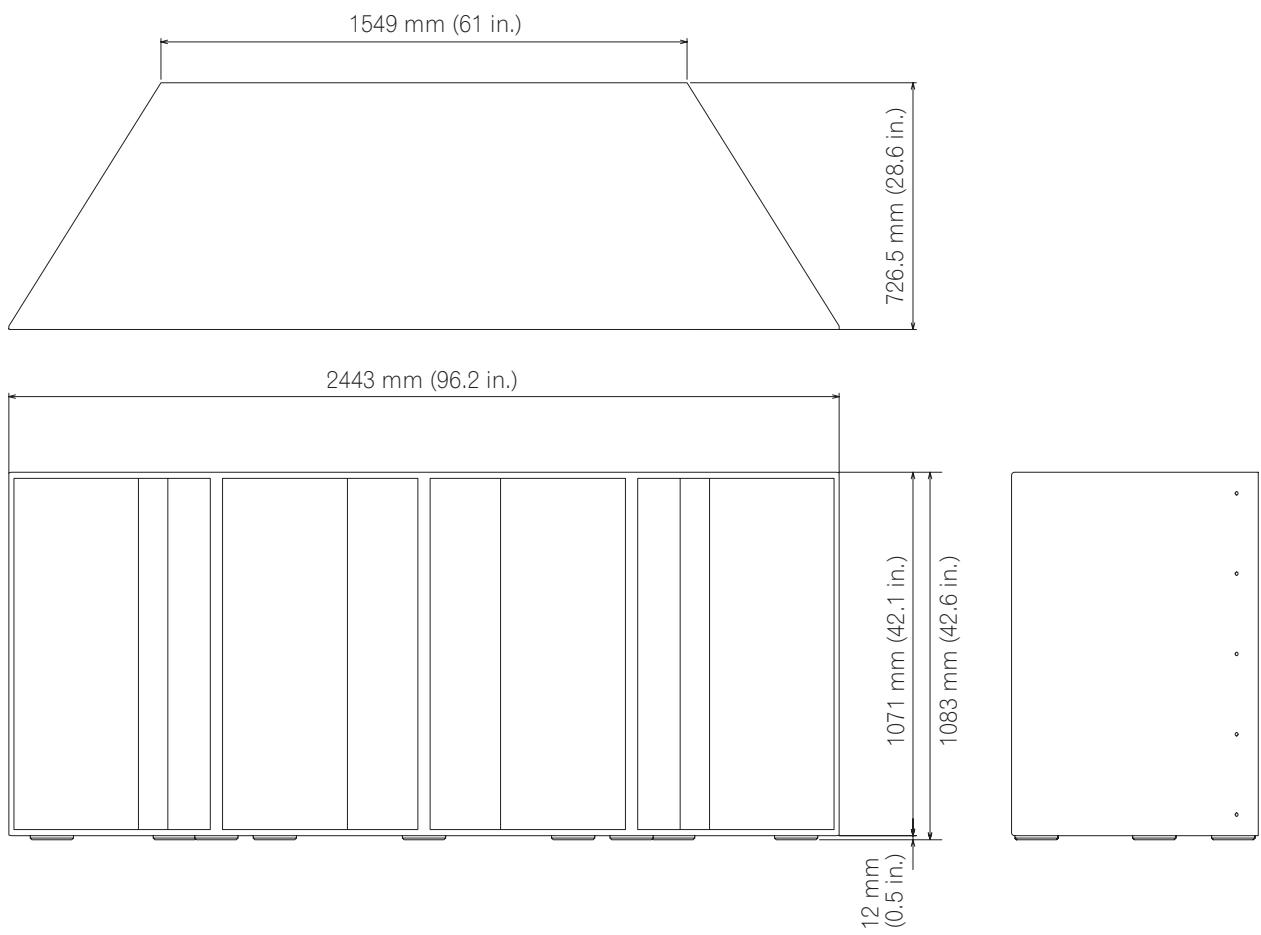
## Product overview



## Features

- Large horn extension for WAV-SUB.
- Accurate amplification of the WAV-SUB's bass, reproducing high SPL low end without the need to increase the amplifier output.
- Delivery of subsonic low-frequency sounds and a high acoustic pressure with no effect on the speed of the WAV-SUB's 18 inch drivers.

## Dimensions



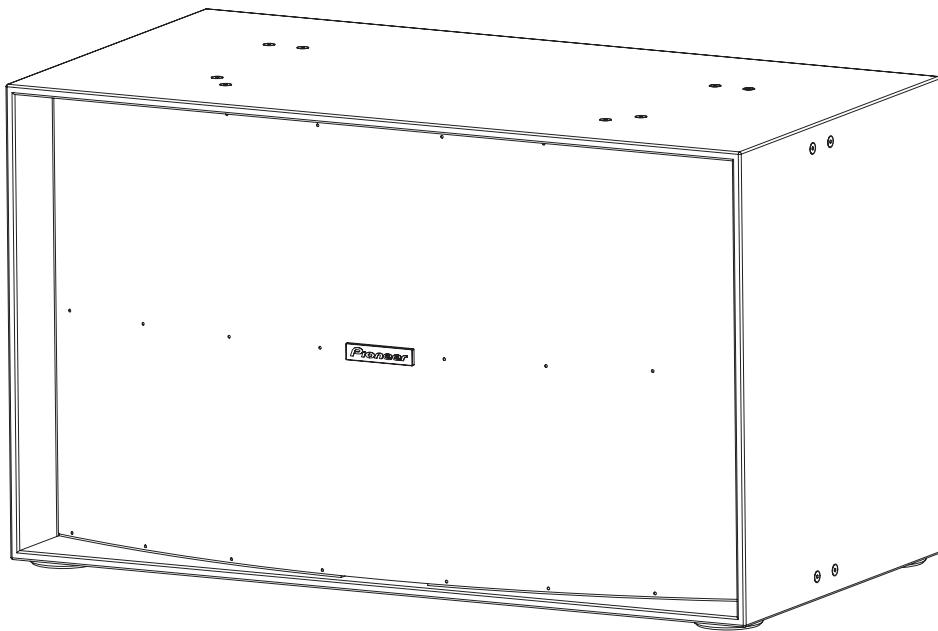
## Specifications

Enclosure Type	Extended horn for WAV-SUB
Frequency Response	—
Sensitivity (1 W/1 m)	Increased sensitivity using a pair of WAV-SUB subwoofers (producing an extra 5 dB at 50 Hz)
Nominal Impedance	—
Power Handling	—
Maximum SPL	—
Dispersion	—
Driver Configuration	—
Connectors	—
Dimensions (W×H×D)	2443 mm × 1083 mm × 726.5 mm (96.2 inch × 42.6 inch × 28.6 inch)
Weight	125 kg (275.6 lb)
Enclosure	18 mm (0.7 inch) birch plywood
Finish	Impact-resistant, Black textured polyurethane

The specifications and design of this product are subject to change without notice.

# WAV-LOW specifications

## Product overview

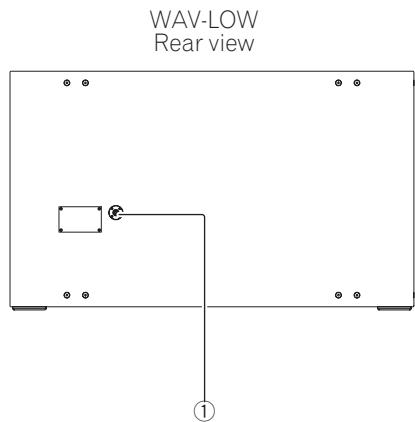


## Features

- Dual high power upper bass box with 15 inch drivers.
- Features a back-loaded transmission line design.
- Provision of a low to mid-range sound with tight and punchy kick.

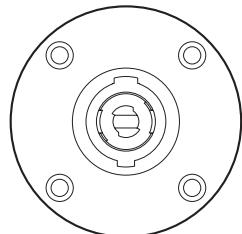
## Connections

- The INPUT connector used is a Neutrik NL4 SpeakON™ connector.
- Refer to the internal connection diagram and make the appropriate connections as shown.

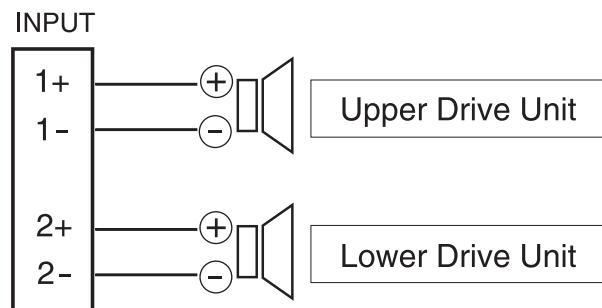


### (1) INPUT connector

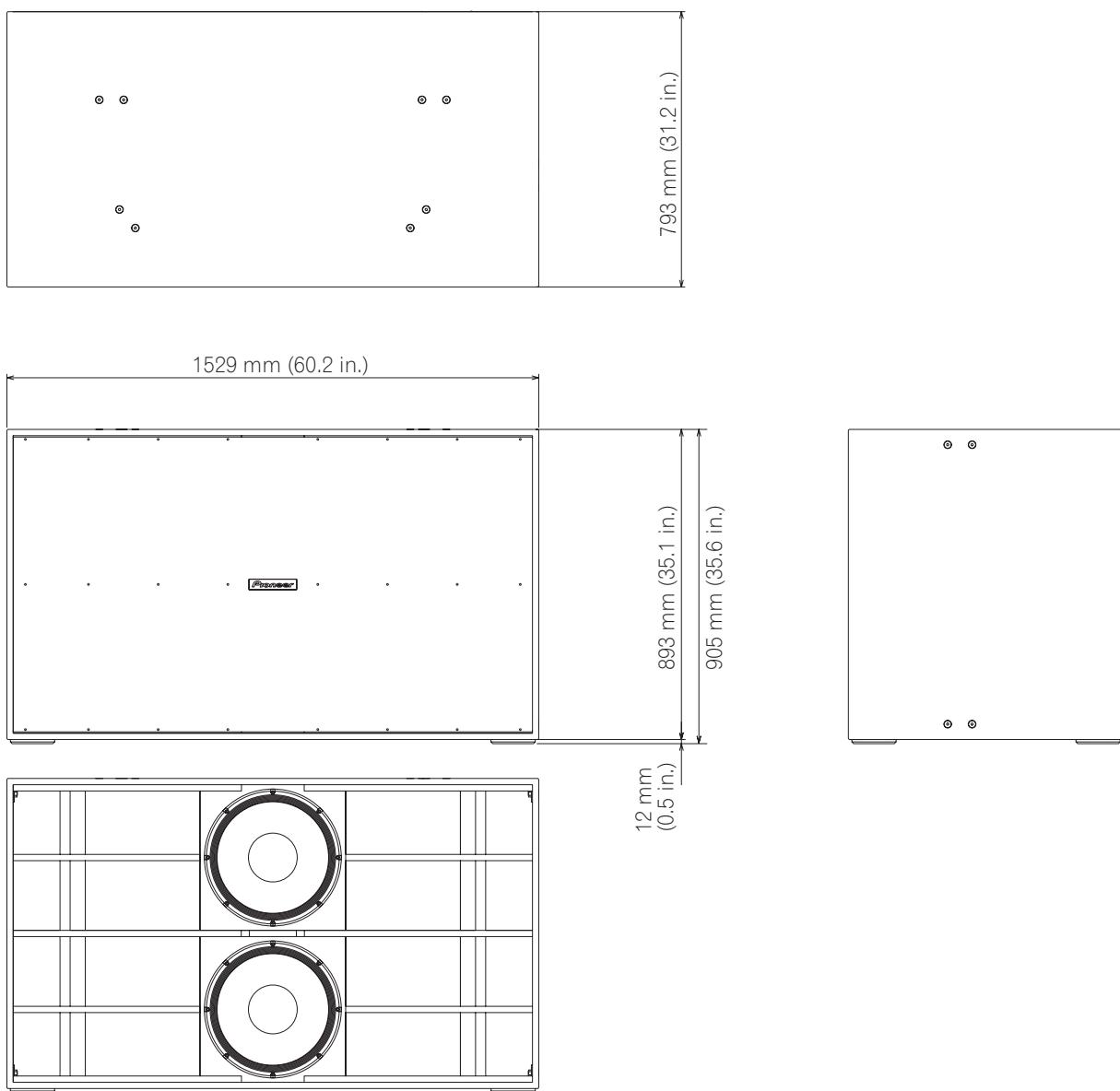
Neutrik  
NL 4MPR Connector



## Internal connection diagram



## Dimensions



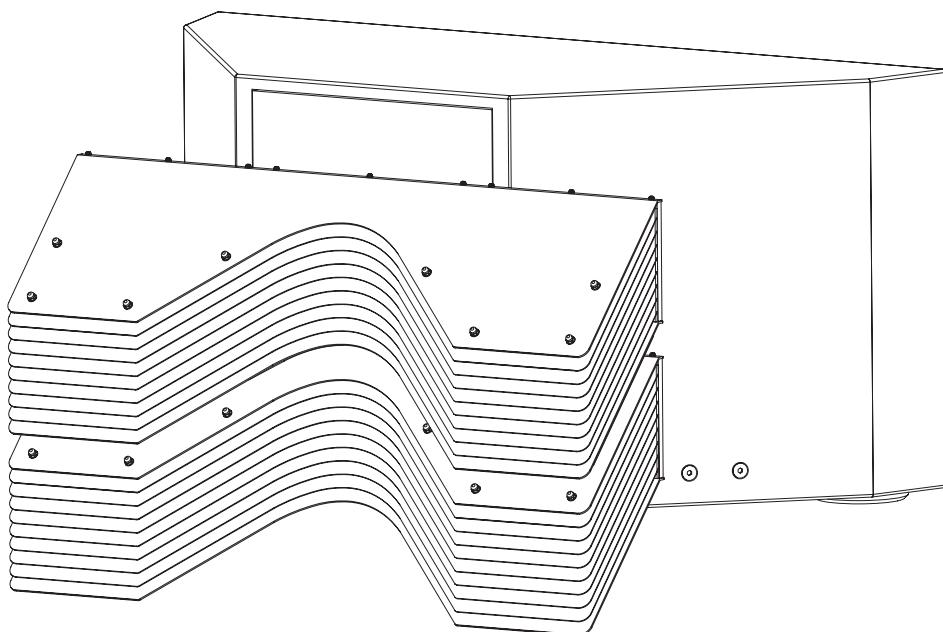
## Specifications

Enclosure Type	Back-loaded horn, low-mid box
Frequency Response	50 Hz to 2 kHz
Sensitivity (1 W/1 m)	103 dB (half space)
Nominal Impedance	2 × 8 Ω
Power Handling	1200 W RMS, 2400 W Programme
Maximum SPL	134 dB cont., 140 dB peak (half space)
Dispersion	—
Driver Configuration	2 × 15 inch (381 mm) ferrite LF drivers
Connectors	1 × Neutrik SpeakON™ NL4MPR
Dimensions (W×H×D)	1529 mm × 905 mm × 793 mm (60.2 inch × 35.6 inch × 31.2 inch)
Weight	179 kg (394.7 lb)
Enclosure	18 mm (0.7 inch) birch plywood
Finish	Impact-resistant, Black textured polyurethane

The specifications and design of this product are subject to change without notice.

# WAV-LENS specifications

## Product overview

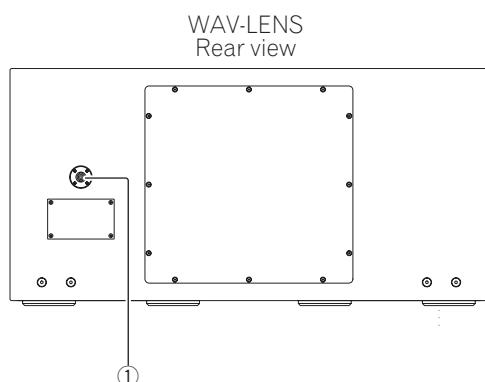


## Features

- Mid to high frequency box with two coaxial compression drivers.
- Pioneer's exclusive horn design, which is attached to the lens to deliver wide and even coverage across a large frequency range.
- A uniquely shaped acoustic lens that diffuses high-frequency sound waves horizontally and vertically while maintaining crystal clear and extremely comfortable sound.

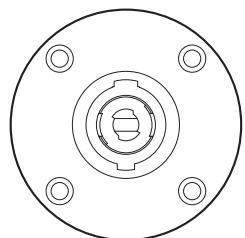
## Connections

- The INPUT connector used is a Neutrik NL4 SpeakON™ connector.
- Refer to the internal connection diagram and make the appropriate connections as shown.

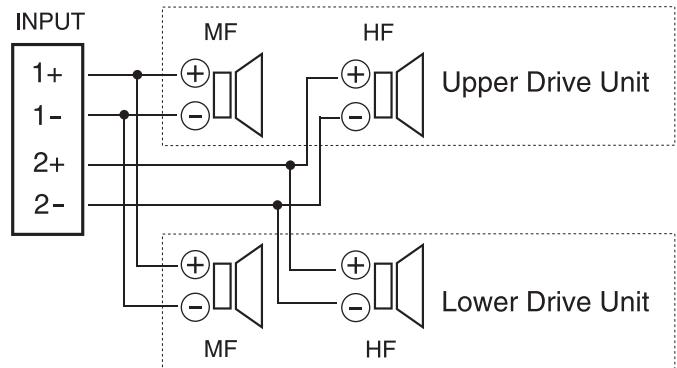


① INPUT connector

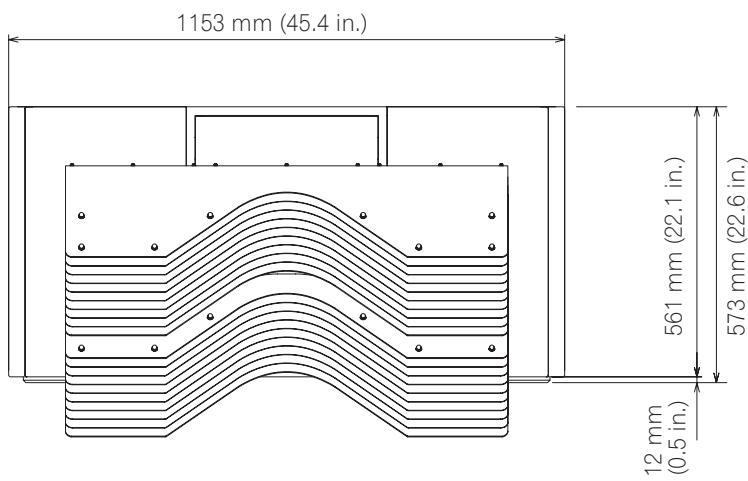
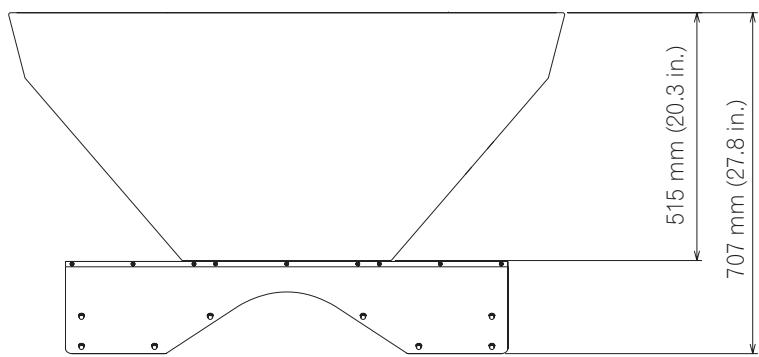
Neutrik  
NL 4MPR Connector



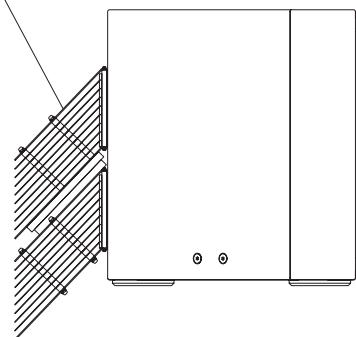
### Internal connection diagram



## Dimensions

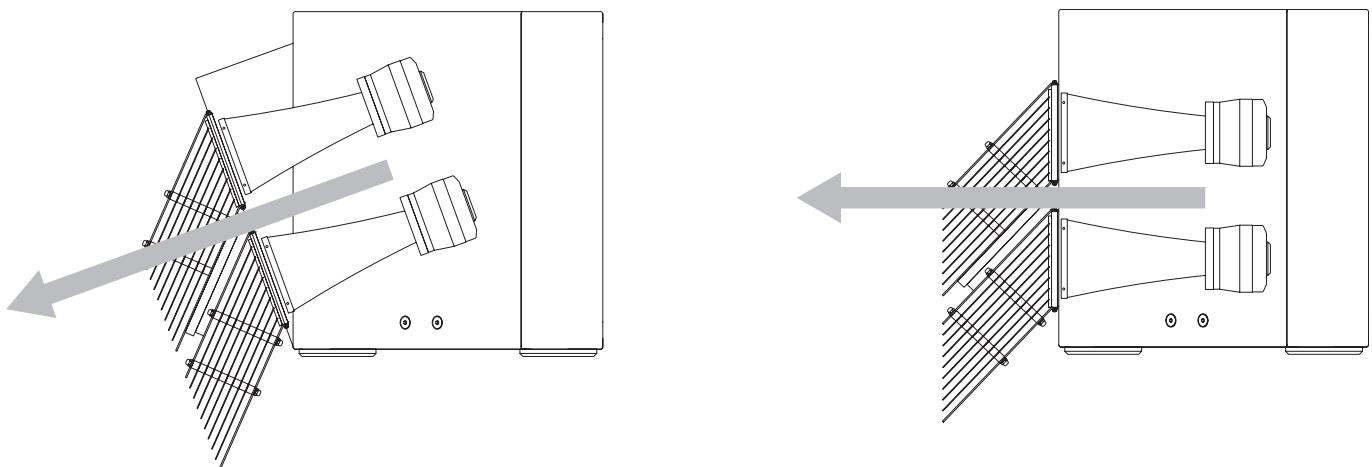


Acoustic lens



## Angle-adjustment mechanism for the WAV-LENS

With the WAV-LENS, only the acoustic lens can be tilted downward while the main unit is installed and secured.



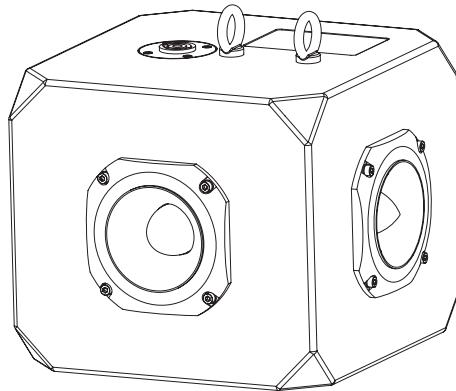
## Specifications

Enclosure Type	Mid-high box with acoustic lens
Frequency Response	MF: 1 kHz to 6 kHz/HF: 6 kHz to 16 kHz
Sensitivity (1 W/1 m)	MF: 115 dB/HF: 113 dB
Nominal Impedance	MF: 4 Ω/HF: 4 Ω
Power Handling	MF: 250 W RMS, 500 W Programme/HF: 160 W RMS, 320 W Programme
Maximum SPL	MF: 139 dB cont., 145 dB peak/HF: 135 dB cont., 145 dB peak
Dispersion	110 °H × 50 °V (variable range of the lens in the vertical direction: 20 °)
Driver Configuration	2 × 2 inch (51 mm) exit coaxial neodymium compression drivers
Connectors	1 × Neutrik SpeakON™ NL4MPR
Dimensions (W×H×D)	Cabinet: 1153 mm × 573 mm × 515 mm (45.4 inch × 22.6 inch × 20.3 inch), Depth incl. the acoustic lens: 707 mm (27.8 inch)
Weight	71 kg (156.6 lb) with the acoustic lens
Enclosure	18 mm (0.7 inch) birch plywood
Finish	Impact-resistant, Black textured polyurethane

The specifications and design of this product are subject to change without notice.

# WAV-TWPOD specifications

## Product overview

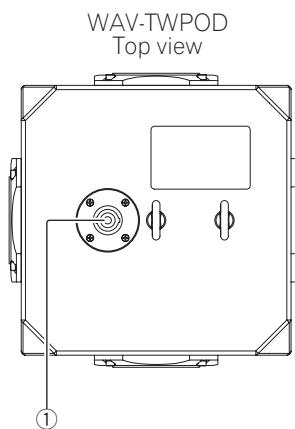


## Features

- Omnidirectional super tweeter pod to reproduce ultra-high frequencies from overhead.
- Expands the depth and space of the system and gives the impression of a larger room.

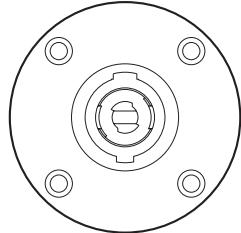
## Connections

- The INPUT connector used is a Neutrik NL4 SpeakON™ connector.
- Refer to the internal connection diagram and make the appropriate connections as shown.

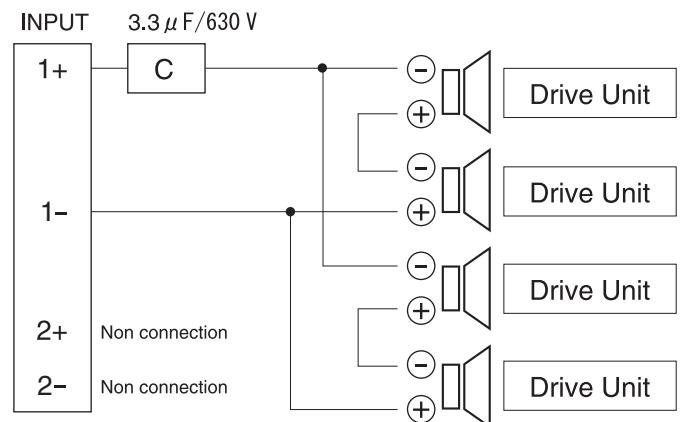


① INPUT connector

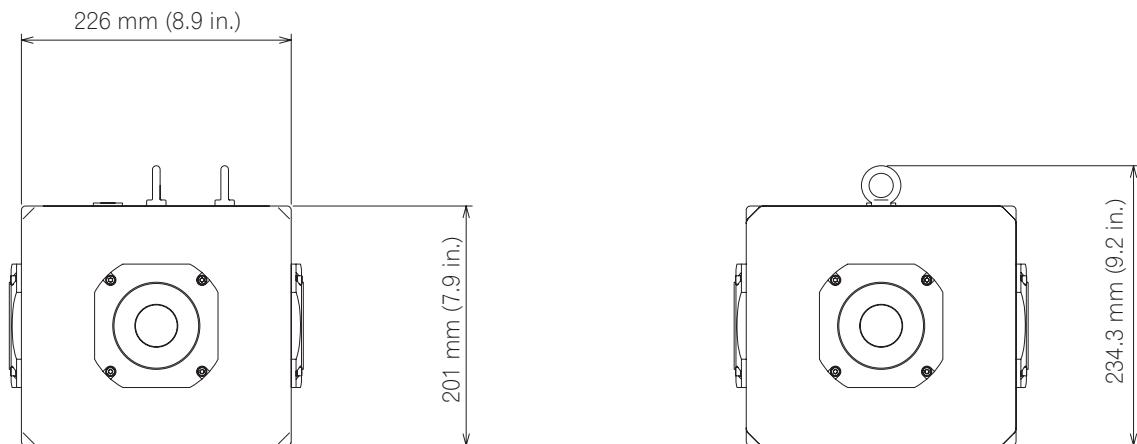
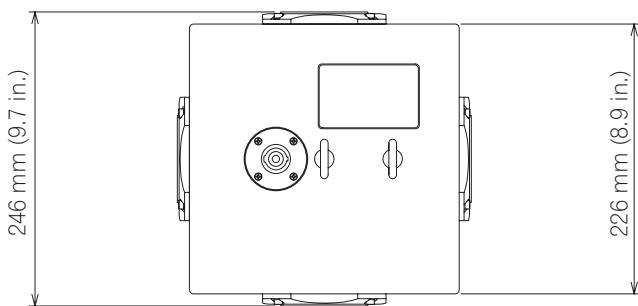
Neutrik  
NL 4MPR Connector



### Internal connection diagram



## Dimensions



## Specifications

Enclosure Type	Omnidirectional tweeter array
Frequency Response	5 kHz to 20 kHz
Sensitivity (1 W/1 m)	100 dB
Nominal Impedance	8 Ω
Power Handling	100 W RMS, 200 W Programme
Maximum SPL	120 dB cont., 126 dB peak
Dispersion	Omnidirectional
Driver Configuration	4 × 1.5 inch (38 mm) exit ferrite compression bullet tweeters
Connectors	1 × Neutrik SpeakON™ NL4MPR
Dimensions (W×H×D)	226 mm × 201 mm × 226 mm (8.9 inch × 7.9 inch × 8.9 inch) not including eyebolts
Weight	10 kg (22 lb)
Enclosure	18 mm (0.7 inch) birch plywood
Finish	Impact-resistant, Black textured polyurethane

The specifications and design of this product are subject to change without notice.

# **Additional information**

## **About trademarks and registered trademarks**

- Pioneer is a registered trademark of PIONEER CORPORATION.
- SpeakON is a registered trademark of Neutrik.

The names of companies and products mentioned herein are the trademarks of their respective owners.

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